



Annual Report

CONSERVING NATURAL RESOURCES FOR A BETTER ENVIRONMENT

98 ALEXANDRIA PIKE, SUITE 31 ► WARRENTON, VA 20186

JOHN MARSHALL SWCD 2004 ACCOMPLISHMENTS

Fiscal Year (FY) 2004 was busy at the John Marshall Soil and Water Conservation District (JMSWCD). In carrying out our mission to serve and educate the citizens of Fauquier County to ensure the proper stewardship of soil, water and other natural resources, some of the many accomplishments were:

Annual Awards Luncheon - The District recognized Blue Ridge Farm, Barrymore Farm, and Conservation Services Inc. for outstanding conservation accomplishments.

Chesapeake Bay Cost-Share and Tax Credit Program - Eleven Potomac watershed landowners and 8 Rappahannock watershed landowners received cost-share funding and tax credits totaling \$70,292.41.

Erosion and Sediment Control (E&S) - Continuing its role as the Plan Review and Inspection Agency for Fauquier County E&S, the JMSWCD conducted 5,404 inspections during FY 2004, up 497 inspections from FY 2003.

Educational Programs - A total of 454 conservation education programs for 4,846 individuals were presented. This included programs on point and non-point source pollution, erosion and sediment control, watershed studies, soil studies, stream monitoring, and others.

Tools For Greener Streams - Over 90 agricultural landowners involved in raising crops and livestock attended a workshop coordinated by JMSWCD and co-sponsored by Prince William SWCD, Virginia Cooperative Extension, Department of Conservation & Recreation, and the Northern Virginia Regional Commission.

Twelfth Annual Tree Seedling Sale - A total of 10,500 tree seedlings, including white pine, Norway spruce, red osier dogwood, and blackhaw viburnum were sold to 185 individuals.

Upper Rappahannock Watershed Stream Monitoring Program - In conjunction with the Culpeper SWCD, JMSWCD volunteers monitored eleven stream sites for macroinvertebrate populations and twelve for ambient water quality.

VA Clean Waterways/Fall River Renaissance - JMSWCD staff collected approximately 980 pounds of trash on Rt. 802 at the Rappahannock River bridge.

Wildlife Seed Mix - Two hundred pounds of wildlife seed mix were distributed to 40 interested Fauquier County citizens. The seed mix consisted of ladino clover, Shiloh orchardgrass, and partridge pea.



Highland's Sarah Henry displays her award winning poster.

VIRGINIA AGRICULTURAL BMP PROGRAM

The Virginia Agricultural Best Management Practices (BMPs) Cost-Share Program has been administered by the District for nineteen years. This program provides financial incentives for farmers and landowners to install 45 different BMPs that improve water quality and conserve valuable soil resources.

Farmers and landowners that implement agricultural BMPs can qualify for a 75% reimbursement of allowable expenses, as well as a 25% credit on their Virginia State income taxes for their out-of-pocket allowable expenses. The tax credit can be as much as \$17,500 and spread out over a 5 year period. To be eligible for the program, the practice must be designed in consultation with

staff to meet NRCS specifications, included in a conservation plan and approved by the District Board prior to construction. Since 1985, the JMSWCD has paid Fauquier County farmers \$2,717,806.50 to install conservation practices on agricultural land. In FY 2004, \$57,043.75 was paid out for BMPs.

Cost-share applications are taken on a continuous basis and ranked according to established criteria. Priority considerations are given to those practices that display the most cost effective means to improve water quality.

Highlights of the Virginia AG BMPs Completed in 2004

Watershed	Practice	Installed	Benefited
Potomac	Grazing Land Protection (SL-6)	4,257 feet of fence	78 acres
Potomac	Reforestation of Erodible Cropland and Pastureland (FR-1)	1	2.2 acres planted
Potomac	Permanent Vegetative Cover on Cropland (SL-1)	1	89 acres planted
Potomac	Alternative Water System (SL-6B)	1	78 acres
Potomac	Stream Protection (WP-2)	2,095 feet of fence	1.7 acres
Potomac	Woodland Buffer Filter Area (FR-3)	1	2.8 acres
Rappahannock	Grazing Land Protection (SL-6)	1,753 feet of fence	26 acres
Rappahannock	Reforestation of Erodible Cropland and Pastureland (FR-1)	1	7 acres planted
Rappahannock	Stream Protection (WP-2)	3,915 feet of fence	42 acres
Rappahannock	Continuous No-till Systems (SL-15A)	2	42 acres



Stream protection fencing can provide water quality benefits as well as esthetically pleasing management strategies.



Frost free waterers supplied by domestic wells provide livestock clean water, and facilitate rotational grazing.

USDA FEDERAL PROGRAMS

Conservation Reserve Enhancement Program (CREP)

The CREP program provides for voluntary agreements with farmers to convert cropland and marginal pastureland adjacent to streams to native grasses or trees, in return for rental payments and other incentives. Fauquier County rental rates are approximately \$75 per acre per year. Participants may also receive 80-100% of the cost of installing eligible conservation practices.

The John Marshall SWCD participated with the Farm Service Agency and the Natural Resources Conservation Service (NRCS) in implementing the Conservation Reserve Enhancement Program (CREP). Over 470 acres of riparian buffers have been planted since the program began in 2001. Hardwood tree survival rates range from 80% to 90%. Twenty-eight miles of streambank have been planted and protected from grazing.

CREP PROGRAMS COMPLETED THROUGH 2004

Watershed	# Tracts	Acres Planted	Miles Fenced	State Cost-Share	State Tax Credit	State Carry-over
Potomac	16	126.1	10.4	\$35,857.75	\$543.31	\$5,087.50
Rappahannock	25	344.6	17.6	\$121,610.75	\$ 0.00	\$4,702.50
Total	41	470.7	28	\$157,468.50	\$543.31	\$9,790.00

Conservation Reserve Program (CRP) - CRP encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as native grasses, wildlife plantings, trees, filter strips, or riparian buffers through an annual rental payment for the term of the multi-year contract.

Environmental Quality Incentives Program (EQIP) – Through EQIP, farmers and ranchers may receive financial and technical help to install or implement structural and management conservation practices on eligible agricultural land.

Wildlife Habitat Incentives Program (WHIP) - WHIP participants agree to implement a wildlife habitat development plan for fish and/or wildlife, and the USDA agrees to provide cost-share assistance for the initial implementation

of the plan. Program participants enter into a 5 to 10 year agreement with the USDA

Farmland Protection Program (FPP) – FPP is a voluntary program that provides matching funds to State, Tribal, or local governments and non-governmental organizations with existing farmland protection programs to purchase conservation easements or other interests in land.

Grassland Reserve Program (GRP) – GRP helps land-owners conserve grassland, rangeland, pastureland, shrubland and certain other lands and provides assistance for rehabilitating grasslands. GRP offers producers several enrollment options: permanent easements, 30-year easements, rental agreements (10, 15, 20, or 30-year duration) and restoration agreements.

TECHNICAL ASSISTANCE AND CONSERVATION PLANNING

Designing best management practices, working with farmers to assure proper implementation, and following through after installation to make sure expectations are met are integral parts of technical assistance. This is a service the District provides to all members of the agricultural community, regardless of any program participation, and is the heart of the “working relationship” that has made Conservation Districts a success.

As a member of the Conservation Partnership, which includes the USDA-Natural Resources Conservation Service, VA Department of Conservation and Recreation, VA. Department of Forestry, VA Cooperative Extension, and VA Department of

Game and Inland Fisheries, the District provides technical assistance and information to help agricultural enterprises operate more efficiently and meet their land stewardship goals.

Proper land management will protect natural resources and sustain agricultural operations. Good management requires good planning. The process of conservation planning looks at each individual farm’s natural resource base and management objectives to provide a plan to meet stewardship goals. JMSWCD staff is willing and able to work in the development of a customized conservation plan to address each farms specific needs and objectives.

EROSION AND SEDIMENT CONTROL PROGRAM

The JMSWCD continued its role as the Plan Review and Inspection Agency for Fauquier County, which is the program administrator. Throughout Fiscal Year 2004, the Fauquier County Erosion and Sediment Control Program (E&S) saw a different kind of growth than experienced in FY'03. FY'03 was marked by increased plan review workload, jumping from 116 plans reviewed in FY'02 to 185 plans reviewed in FY'03. Many of the projects that were in for plan review in FY'03 began construction in FY'04. This is highlighted in the *Ordinance Mandated Initial Inspection* numbers, which rose from 17 initial inspections conducted in FY'03 to 41 initials in FY'04.

Due to the increased plan review workload experienced in FY'04, the John Marshall SWCD received funding for a new urban and commercial E&S Control Specialist position. Debbie Switzer became the newest member of the E&S team in January of 2004. With slightly fewer plan reviews this year, staff was able to devote more time to construction site inspections. This fluctuation in workload proved fortunate, since FY'04's new projects were not only twice as great in number, but many of the new projects were larger in size than the average project already on the inspection schedule. As the disturbed land acreage on a project increases, the project's E&S plan increases in complexity. Staff responded to this new challenge by upping the number of inspections per project. This can be seen by comparing the number of active projects to the total number of state mandated bi-monthly and monthly inspections for

each fiscal year. 116 projects were active in FY'04, only one more than in FY'03 (115), however the number of total state mandated bi-monthly and monthly inspections performed in FY'04 was 1,306 compared to 1,150 in FY'03 (an increase of 156 inspections).

The Rural SFH Inspection Program continued to refine during its second full year at the District. Although the number of rural SFHs in the county dropped from 350 in FY'03 to 268 in FY'04, inspections on the projects increased from 1,019 in FY'03 to 1,178 in FY'04. With fewer projects and more time spent in the field, staff was able to keep a closer watch on the rural SFH sites. Working closely with the Fauquier County building Department, Stop Work Orders were used to bring projects in violation into compliance.

JMSWCD staff continued to regularly attend monthly Planning Coordination Meetings and Technical Review Committee (TRC) meetings. New this fiscal year, staff began regularly attending the recently implemented Pre-Application meetings to help address erosion and sedimentation problems in an even earlier stage of project planning. Together, the Pre-Application and TRC meetings are invaluable to facilitate discussion of projects in the review process between the owner and review agencies. **The JMSWCD continues to strive to work closely with all project representatives to achieve efficient and comprehensive environmental protection during construction.**



No stabilization at culvert outlet provides little protection from erosion and downstream flow of sediment.



Culvert outlet is lined with stone and seeded to minimize erosion and reduce velocity of downstream flow.

EROSION AND SEDIMENT CONTROL RECORD

	FY '03	FY '04	FY '04	FY '04	FY '04	FY '04
<u>Inspections</u>	Total	1 st Qtr (As of 9/30/03)	2 nd Qtr (As of 12/31/03)	3 rd Qtr (As of 3/31/04)	4 th Qtr (As of 6/30/04)	Total
State mandated bi-monthly inspections	779	166	191	265	332	954
State mandated monthly inspections	371	74	74	82	122	352
Ordinance mandated stabilization inspections	136	17	17	12	17	63
Single-family home inspections (active subdivisions)	2,602	653	746	685	773	2,857
Single-family home inspections (rural)	1,019	304	288	240	346	1,178
<u>Total Inspections</u>	4,907	1,214	1,316	1,284	1,590	5,404
<u>Program Administration</u>						
Formal notices of violation	37	3	8	12	10	33
Stop work orders (commercial/subdivision)	4	3	0	0	0	3
Stop work orders (rural single family)	118	39	46	27	28	140
Active projects	115	80	87	93	101	116
Establishment projects	47	29	22	22	24	42
Single-family homes (in active subdivisions)	435	221	242	211	186	474
Single-family homes (rural)	350	189	209	213	178	268
Ordinance mandated initial inspection	17	9	8	6	18	41
Ordinance mandated final inspection	23	3	5	3	1	12
E&S plans reviewed	185	60	39	43	24	166
Complaint response	37	14	11	7	4	36
Referrals reviewed	124	14	18	21	13	66

Due to staff shortages, staff training and inclement weather, approximately 49 bi-monthly, 24 monthly and 149 SFH (subdivision) inspections could not be conducted in January of 2004.

EDUCATIONAL PROGRAMS

The John Marshall SWCD conducted 454 conservation education programs for 4,846 individuals in Fauquier County for FY 2004. District employees worked with elementary through high school age students, and adult audiences, providing information on a variety of conservation topics such as point and nonpoint source pollution, water quality, stream monitoring, soils, erosion and sediment control, and best management practices. Programs are customized to meet the needs of the groups requesting the programs. Participating students represented public, private, and home schooled youth. Adult participants included teachers, parents, chaperones, farmers and other interested citizens.

During FY 2004, the JMSWCD educational programs included:

Annual Poster Contest - Sarah Henry, from Highland School, won the annual poster contest sponsored by the JMSWCD. This year's theme was "The Living Soil".

Arbor Day Celebration - JMSWCD staff helped the County Forester plan an Arbor Day celebration at Highland School.

Bird Studies - Fifteen high school students from the Fauquier High School Ecology class were trained in bird biology to conduct a workshop with six rotating stations for 85 4th grade students from Bradley Elementary.

Cedar Run Monitoring Project - Students from Helen Lathrop's Fauquier High School biology class conducted water quality tests and collected macroinvertebrates on a monthly basis at Cedar Run as part of a long-term educational watershed study.

Chesapeake Bay Grass Project - Elementary and High School students from Highland School grew wild celery in the classroom and transplanted the seedlings into the Bay at Mason Neck Park in eastern Fairfax County.

Conservation Field Days - Over 500 seventh-grade students, teachers, and chaperones from Taylor and Cedar Lee Middle Schools participated in conservation field days at local farms in October and April. Guest instructors presented talks on animal bedding, milking, newborn calves, nutrient management, water quality, soils, forestry, insects, and wildlife habitat conservation.

Educational Displays - JMSWCD personnel set up and staffed educational displays at the Children's Festival, Earth Day, the Small Farm Festival, and Fauquier County Fair.

Envirothon - A team from Highland School participated in the Area II Envirothon competition held at Wakefield Park in Fairfax County.

Farm Tour - JMSWCD personnel coordinated and hosted over 500 third grade students, teachers, and chaperones at two local farms in April. Students rotated through newspaper recycling, dairy milking, dairy calf, nutrient management, farm life cycle, plant, nutrition, farm animal, farm equipment, insect, soil, and water quality stations.

Fauquier Outdoor Lab Programs - JMSWCD staff conducted soil studies, aquatic ecology and bird conservation programs at the Outdoor Lab for a variety of grade levels.

Marsh Run Monitoring Project - Students from Dave Crompton's Liberty High School AP biology class conducted water quality tests and collected macroinvertebrates at Marsh Run on a monthly basis as part of a long-term educational watershed study.

Point and Non-Point Source Pollution - The *Enviro-scape* model was used to demonstrate the impact of eve-



Students from Helen Lathrop's biology class at Fauquier High School collect and inventory macroinvertebrates from Cedar Run as part of a long term project.

ryday rural and urban events on watershed health to 700 students ranging from elementary to high school.

Pond Study - Helen Lathrop's biology classes at Fauquier High School conducted water quality tests each month to track the chemical and biological health of the Fauquier Outdoor Lab's pond.

Soil Studies - Over 200 youth received hands-on instruction in soil studies, learning about structure and texture, the soil profile, and soil testing.

Teacher Education - The JMSWCD staff coordinated Ag in the Classroom training for Fauquier County teachers.

Upper Rappahannock Monitoring - JMSWCD staff and volunteers continued monitoring of 11 sites for macroinvertebrates using the Modified Virginia SOS method.

Virginia Save Our Streams (VA SOS) - Training sessions in the VA SOS methodology for macroinvertebrate collection, identification and stream index calculation were held throughout the year for citizens and staff interested in stream monitoring.

Warrenton Natural History Day Camp - JMSWCD staff assisted over 20 youth campers with macroinvertebrate monitoring and chemical testing in a tributary of the Rappahannock River.

Youth Conservation Camp - Flo Parker, sponsored by the JMSWCD, attended Youth Conservation Camp at Virginia Tech in July 2004.

Inter-Agency Cooperation

The JMSWCD works closely with several other government agencies to meet its educational goals. Staff from other agencies frequently assist the District in conducting educational programs and field days. JMSWCD staff in return, have extended their technical expertise to assist other agencies with their programs. In the last year, personnel from Virginia Cooperative Extension, Virginia Department of Forestry, Department of Conservation and Recreation, Fauquier Community Development, and numerous volunteers from local farms, the Fauquier Master Gardeners, Piedmont Environmental Council, and Joiner Micro Labs have assisted with District programs. District staff have made presentations on Best Management Practices, Cost Share Programs, alternative agriculture, and lawn care at Extension and Master Gardener programs.



Master Gardener volunteers Jim Scibek and B.J. Murry display insect specimens to 7th grade students at the Conservation Field Day held at Elk Mount Farm.

The Annual Report is a yearly publication of the **JOHN MARSHALL SOIL AND WATER CONSERVATION DISTRICT**, 98 Alexandria Pike, Suite 31, Warrenton, Virginia, 20186-2849.

District Directors

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William "Billy" Frazier, Sec/Tres
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Vacant, E&S Specialist
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Kerry Wharton, E&S Specialist
Tom Turner, Cons. Specialist
John Chambers, Cons. Specialist
Chuck Hoysa, Cons. Ed. Specialist
Nancy Zukas, Office Associate

Honorary Directors

Henry Green
Edwin F. Gulick

Newsletter Editor

Chuck Hoysa

Phone

(540) 347-3120, ext. 3

Email:

johnmarshall.swcd@vaswcd.org

Website Address

www.fauquiercounty.gov/government/departments/jmswcd

The Vision of the John Marshall Soil and Water Conservation District is to serve the citizens of Fauquier County as the leader in ensuring proper stewardship of soil, water and related resources.

The Mission of the John Marshall Soil and Water Conservation District is to provide leadership, technical assistance, and education to the citizens of Fauquier County in proper soil stewardship and water quality protection to ensure the wise use of the county's natural resources.

BOARD MEETINGS

The District conducts monthly board meetings to deal with conservation issues and landowners' concerns within Fauquier County. The public, as well as cooperating agencies, are invited to attend District meetings and provide input. Unless otherwise noted, meetings are held the second Wednesday of each month at the JMSWCD office on Alexandria Pike in Warrenton.

SUPPORT

The Commonwealth of Virginia supports the John Marshall Soil and Water Conservation District through financial and administrative assistance provided by the Department of Conservation and Recreation.

The Fauquier County Board of Supervisors supports the John Marshall Soil and Water Conservation District through an annual grant and provides administrative assistance through the Department of Finance and the Department of Human Resources, to administer payroll, benefits, and personnel matters.

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